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THE DANGERS OF THE TRANSMISSION OF SYPHILIS BETWEEN NURSING CHILDREN AND NURSES IN INFANT ASYLUMS AND IN PRIVATE PRACTICE.

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THE DANGERS OF THE TRANSMISSION OF SYPHILIS BETWEEN NURSING CHILDREN AND NURSES IN INFANT ASYLUMS AND IN PRIVATE PRACTICE.

By R. W. TAYLOR, M.D.,
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The mode of syphilitic contagion to be studied in this paper is for various reasons interesting and peculiar. Its origin is wholly unassociated with the sexual act, and on the contrary is intimately dependent upon that process so necessary to the growth and maintenance of the being, namely, nursing at the female breast. The agent which communicates the contagion is neither a syphilitic man nor woman, but on the contrary is an innocent infant, which itself has been the victim of syphilis inherited from either or both parents. The secretion in which the disease originates is not derived from a primary syphilitic lesion, but is the product of secondary lesions, namely, mucous patches, which are so frequently found in the mouths of syphilitic infants. The method of this form of syphilitic contagion is as follows: An infant, the victim of hereditary syphilis, having mucous patches in its mouth, is nursed by a healthy woman; the morbid secretions of its mouth are deposited on her nipple, and thus she becomes infected with syphilis, having its initial lesion on this site, which is, in due time, followed by general manifestations. Such instances are peculiarly distressing in themselves, and unfortunately very often the trouble does not end here, as a woman thus syphilitic is very liable for obvious reasons to infect others, so that instances have been recorded in which syphilis thus communicated to a nursing mother has, in time, infected every member of the family. This further source of infection is also important and interesting, and will require our study. In this case the reverse of the previous fact is observed, as the contagion is here derived from the woman with a syphilitic chancre, or chancres, on her breast, the secretion of which infects, or is liable to, as many nursing infants

as may be assigned to her. These modes of contagion, especially the first, have attracted attention, and have been particularly dwelt upon by authors, especially French and Italian, but in America, until now, they have escaped special attention. In other countries they have been shown to be prolific sources of syphilis, and means have been taken to prevent them. My own observation shows me that the time has arrived when they should be thoroughly discussed among us, since undoubted instances of syphilis thus communicated have occurred both in hospital and private practice. But by far the greater danger exists in large hospitals or asylums, where great numbers of children are congregated, and where wet nurses are employed to care for them. In private practice isolated cases of contagion are liable to occur, but in the institutions referred to, owing to certain circumstances to be considered further on, a very great and serious danger exists that syphilis will be communicated. We shall see that there are special reasons why, owing to existing regulations and customs in these institutions, this danger is peculiarly menacing, and certainly no one will doubt the propriety of inquiring thoroughly into it, with a view of its future prevention. During the summer I have had brought prominently to my notice by Dr. C. A. Loring a woman thus rendered syphilitic in a large infant institution, and her case brings out forcibly the dangers I allude to. I propose therefore to make it the basis of this study, as by so doing I can present the whole subject in all of its aspects in such a manner I hope as to be clear and forcible to my readers. The case is as follows:

Emma McNally, English, aged 19, a married woman, entered a lying-in institution in this city on the 5th of May, 1875. She was pregnant for the first time, and that night was delivered of a healthy male child. The mother was and had been very healthy, and the next day her milk came in abundance. In obedience to the rules of the institution, that she should nurse one or more children besides her own in payment for the care received, she gave the breast to two or three babies. The next day a very sickly looking, wrinkled child was assigned to her for care. She nursed this together with her own for a number of days, and then, owing to its debilitated condition, it was sent to the country. She did not notice any sores about the child,

though she did not see it undressed, but she says that it had the sprue, for its mouth was very sore. The next day a foundling was given to her to nurse regularly, and though she was very reluctant to take it, she did so. She described the child as being very thin and wrinkled, and appearing like a little old man, and having sprue very badly. Besides having this child as a regular nursling, she occasionally gave the breast to other children, at the request of their nurses, as her milk was very abundant. While in the asylum she reserved the right breast for her own child, and gave all the others the left. She remained in this condition, taking care of the sickly child, for exactly two weeks, during which time she sometimes noticed that her nipple was slightly sore. She was then in the asylum from the 5th to the 20th day of May, two full weeks. From the 20th of May to the 25th of June she remained at home, and only nursed her own child, then giving it either breast indifferently. At the latter date, June 25th, and on the day following she nursed at the breast the infant child of a lady in private life. The latter child is said to be in appearance healthy, as was its mother also, except that she did not have much milk. In a day or two after this again, that is about June 27th or 28th, she noticed that her left nipple was slightly sore; she describes it as presenting a raw appearance in one spot and being tender. The pain and inconvenience prompted her to spare that breast, so she nursed her child with the other, except for a few days, when she put it to that breast in order to relieve the tension produced by the accumulated milk. She thinks that, in all, the child did not nurse from that breast more than two days after she discovered that it was sore. It may be well to add here that she attributed the trouble of her nipple to the *lady's* child which she had last cared for. The ulcer increased in size, and caused her severe pain, so she consulted Dr. C. A. Loring, who diagnosticated it as a syphilitic chancre. In order to thoroughly verify the diagnosis, I was asked by the doctor to see the case, and the following were the appearances observed July 20th, 1875. On the outer two-thirds of the apex of the left nipple was a thin brownish-green crust, which, being slightly adherent, was painlessly removed with ease, revealing a shining grayish-pink ulcerated surface, of great smoothness, the edges of which were not at all elevated. Upon

pinching the nipple, a very well-marked induration was felt, and this act showed well a blanching of the tissues affected, so often observed in hard chancres, and due to the density of the deposit. The lesion was evidently an infiltration into the greater part of the stroma of the nipple, with superficial ulceration. The pectoral glands could not be felt, as the woman was quite fat, but in the axilla a typical syphilitic adenopathy was felt, the gland being nearly as large as a walnut. One of the left post cervical glands was in a similar condition, as was also the left epitrochlear, which was more than usually enlarged. The inguinal ganglia were not noticeably enlarged. The peculiar character of the ulcer, its indolence, the state of the glands, and the history of the case, led me to confirm fully the diagnosis previously made by Dr. Loring. If any doubt had been entertained, it would have been completely dispelled in a short time, for in the last of July, constitutional syphilitic manifestations showed themselves. On the first of August Dr. Loring addressed a note to me, in which it was stated that she had within a few days witnessed the evolution of a general syphilide, and had observed that the temperature was 104½° Fah. A few days later I saw the patient, and observed a general roseola, which was very copious, and showed a slight tendency to become papular, also much hyperæmia of the pharynx. The woman complained of great weakness, and of fugitive pains with nocturnal exacerbation. For the purposes of this paper, no further particulars of this case are necessary, as we have the undoubted evidences of syphilis in the woman. It is essential, however, to our object to consider the condition of the two infants, and it was through the assiduity of Dr. Loring that the details were obtained. The first child given her as an extra was, as we have stated, sickly and wrinkled in appearance, and had a very sore mouth, which was considered to be of an aphthous nature. The next child which was assigned to her in a day or two was a female foundling, which she kept for the remainder of her term in the institution. The woman states that so sickly and withered did the child appear, looking like a little old man, that it attracted the attention of other nurses as being diseased. She very reluctantly assumed its care at the urgent solicitation, even command, of the visiting physician, who was, she said, aware of the fact that the child had a sore

mouth. Owing to the extreme condition of debility of these two children, they were sent to a suburban branch of the institution, where it was thought that the fresh air might be beneficial. Here the diagnosis of syphilis in each case was entered; still they were each for a time nursed by a woman, and after that they were fed by the bottle until their death, which occurred on the nineteenth of June.

Let us now study the history of the woman who nursed these children. She entered the hospital on the 5th of May, and between that date and the 20th of that month, she gave her breast to two syphilitic children. From the fact that her chancre or initial lesion of syphilis appeared on the nipple, it is evident that the contagion took place through that organ. As she nursed these children who had sore mouths, it is certain that from either one of them she derived her contagion. Knowing as we do that the first incubation period of syphilis ranges between 7 to 10 days at the shortest, and 60 at the longest, we apply the fact to this case. Thus the nursing of the suspected children occurred between the 5th and 20th of May, and the appearance of the chancre was on the 28th of June, so that, supposing that the contagion was due to the first child which she nursed about three or four days, the incubation period would be 50 days. This, though somewhat long, considering the great vascularity of the nipple, and the favorable condition which it offers to the transudation of infecting fluids, is fully in accord with the well-demonstrated law of syphilis. Again, supposing that the contagion was derived from the second or foundling child, the incubation period would be shorter, it being nursed later; it would then be from 42 to 47 days. This is reckoning that the child was nursed from the 10th to the 20th of May. Such being the case, as the woman was healthy, and had not, of course, given the breast to any child before her confinement, nor had that organ been subjected to any unnatural contact, contagion certainly did not occur prior to her entering into the institution. Following up the woman's history, we find that she notices nothing unnatural as to her breast, and that she nursed only her own child until June 26th, when for two days she gave the breast to the child of a lady, who temporarily hired her as wet-nurse. Two days after this she noticed that her nipple was sore, and she naturally, but of course erroneously, at-

tributed her trouble to the lady's child. As her lesion was syphilitic, we are able to positively state that she did not derive the contagion from this child, for only two days elapsed from the date of its nursing by her to the appearance of the chancre, which is too short a time for the development of syphilis. The circumstance of the woman wrongly attributing her contagion to the last nursling cared for, we shall find later on to present important points. The plain facts, then, of this case are these: A perfectly healthy woman, free from syphilis, enters a lying-in institution in order to be cared for during the period of child-birth. Being unable to pay, she consents, according to the rules, to nurse one or more children of the institution in addition to her own during her stay. To her are assigned two children, which at the time have sore mouths, and which soon after die of syphilis. She nurses them for two weeks, at the same time that she nursed her own child. In less than six weeks after this stay in the hospital a chancre develops upon her left breast, and it is very necessary to add here that she always gave the left breast to the strange children, and *never* the right one, which she reserved for her own child exclusively. From these facts we are warranted in the conclusion, and such is supported by the well-known laws of syphilis, *that the woman was contaminated in that hospital.* She certainly did not receive the contagion prior to her entering, for, apart from the improbability of the fact, her statements prove, as has been said before, that neither of her breasts at that time were subjected to any process by which syphilis could be communicated. It is certainly positive that she did not become syphilitic from the child nursed two days before the appearance of her chancre, as such an incubation would be too short for syphilis, and besides this the child was without a blemish. All the circumstances and the scientific facts deduced therefrom point to the two sickly children in the hospital as the sources of the syphilis. It is impossible to determine which one was the infecting agent; still such knowledge is unnecessary, since we have the undoubted fact that the syphilis was communicated by one of the children in the institution. Now upon this fact hinges a number of serious considerations. Let us endeavor to learn how this syphilitic contagion was caused. We have the fact as given by the woman, who did not know its full weight, that the two chil-

dren had sore mouths. As they were subsequently pronounced to be syphilitic, it is fair to suppose that the soreness was really due to mucous patches, the secretions of which we know to be extremely contagious. It is to be inferred that at that time the attending physicians in the hospital did not recognize the syphilitic condition of the infants, as the woman was led to believe the children had only a simple nursing sore mouth. Certainly that is all they were treated for at that time. As far as I can learn, upon careful inquiry, syphilis was not suspected nor settled upon as the disease affecting the children until they reached the suburban hospital. The fact now is perfectly plain that a syphilitic condition of the mouth was regarded as of simple nature, and the result was that a woman became a victim of syphilis. This is a serious circumstance, and its occurrence is very significant, as it suggests to us that under the present regulations of some of our infant charities there is a great danger of syphilis being transmitted to nurses, and of course they may further communicate the disease. It becomes, then, an interesting subject for study to determine exactly the sources of the danger, and to settle upon such suggestions which, if properly carried out, will prevent in future such sad accidents. Now we know how very prevalent syphilis is, and that in infant asylums many cases of infantile syphilis are to be found. We also know that mucous patches in the mouth (I shall speak only of them in this study) occur very frequently in hereditarily syphilitic children. From my own observation I am able to say that nearly 70 per cent. of all cases of hereditarily syphilitic infants have their buccal lesions, which we know to be equally as powerful in conveying the contagion of syphilis as is the secretion of its initial lesion. These being the facts, we see that we have here, I hope I may say not an unsuspected, but certainly a prolific source of syphilitic contagion. As these lesions occur in the mouth, it is plainly seen how readily their secretion is conveyed to the nipple, the tissue of which presents every facility to the implanting of the syphilitic poison. These facts cannot be overlooked; their significance demands careful attention on the part of the authorities, both lay and medical, of these institutions, for if they are unheeded the benefits of such, when tried in the balance, become very doubtful. I am loath to arraign any set of gentlemen, and accuse them of neglect;

but I am certain of the fact that, in several of the infant institutions, this mode of the transmission of syphilis is not fully, I will not say understood, but rather appreciated and provided against. With this serious danger of the occurrence of syphilitic contagion in these institutions, too much care cannot be exercised in its prevention. Under the rule that a woman shall nurse one or more infants besides her own, how great is the danger that she will become syphilitic, and then that she will transmit the disease to her own child. Here we find that the evil is double. In the present case the woman, very luckily for her infant, reserved one breast for it exclusively, hence it escaped, for I was unable to find any trace of syphilis in it. Still it might have received the contagion from its mother. Of such cases there are unfortunately many precedents; for there are in French journals the records of cases in which not only the nursing infant was affected, but also several members of the family received the contagion from the chancre in its mouth by kissing it, the infant having gotten its chancre from its mother's breast, upon which a similar lesion existed caused by mucous patches in the mouth of a tainted nursling. Then, again, the liabilities to contagion do not end here. A woman having plenty of milk (particularly among the lower classes) very frequently nurses other children, whose mothers do not have enough, or they may engage themselves, after they leave the institution, as wet nurses. Here we see what dangers are run. In the early stage, and in some instances throughout their whole course, chancres of the breast are very slight in appearance, and often regarded as of simple character; sometimes as a pimple or again as a slight chafe or fissure, hence their danger is not feared, and syphilitic contagion may result. These are not imaginary circumstances, for I have before me while writing details of cases in which these facts were observed in France. Turning again to the case which is the text of this paper, we find that this woman engaged herself as a wet-nurse; fortunately for the child attended, the woman was yet in her incubation period, and her chancre had not yet appeared, so the child escaped. The woman says that for a short time she regarded it with no apprehension, consequently it would not have prevented her from giving that nipple to the child, for we know that these women nurse children even with breasts quite sore. Further

on I shall make some practical suggestions apropos of this period of incubation. These, then, are the dangers, and it certainly may be said that they are of formidable character, of syphilitic contagion between nursing children and nurses. Let us see how they may be in a great measure prevented. But in this direction we meet an obstacle of some importance in practice, that is, the very great difficulty of determining in some cases whether or not a certain sore state of the mouth is or is not due to syphilis, or whether it is simple in nature. Indeed I think it will be conceded by those who see many cases of simple nursing sore mouth, which are so very prevalent in large institutions, that their diagnosis from syphilis, particularly when severe in form, is sometimes difficult; indeed in cases in which false membranes form over the ulcerations, it is almost impossible, unless concomitant symptoms and lesions are taken into consideration. The scope of this paper does not permit me to fully consider the various features of the simple and specific sore mouths of infants, and I shall but briefly allude to certain general facts. In many simple cases of stomatitis no suspicion of syphilis is liable to occur, as the benign character of the buccal lesions is apparent, therefore there is little liability to error as regards them; but in the severer forms, in which there is sometimes great systemic debility, and extensive ulceration, with patches either membranous or parasitic, there is much danger of error. This danger is rendered all the more marked as certain changes are liable to take place in the syphilitic lesions in the mouths of children, which mark their character. If we had only mucous patches in their typical form to recognize in the case of syphilis of infants, an error of diagnosis would not often occur to an educated physician; but unfortunately these lesions sometimes undergo rapid and extensive metamorphosis, losing their peculiarities of appearance, and coming in the end to look very much like the severer forms of stomatitis and aphthous sore mouth. I think that observers who have studied this matter will agree with me as to the pathological resemblance. Still I think there are certain facts in the lesions themselves which will assist the observer. In syphilis, the coryza which most constantly accompanies the mouth lesion is much more severe, and the snuffling much greater, and there will be observed a tendency for the

syphilitic lesions to develop at the angles of the mouth, and there to induce ulceration, which may extend to the integument. This as a diagnostic point is of much importance. In syphilis the focus of the inflammation is developed upon the tongue, the fauces, and the region named, whereas, in the simple form of sore mouth, the tissues generally, except the throat, are involved, and the gums are affected, while they most constantly escape in syphilis. Again, in the simple form of trouble, the sulci between the lips and the teeth are often implicated, and in syphilis it is usual for them to escape.

But in all instances we have to fall back upon the history of the case, and upon the existence of other lesions, and here we generally have features and facts which are satisfactory. In hereditary syphilis it is very rare to observe buccal lesions only; we shall generally find dermal manifestations, and especially do we very most constantly see anal mucous patches. If such unequivocal lesions are found, the diagnosis is conclusively settled. It must be remembered that in some cases of hereditary syphilis, the cutaneous lesions are very slight and ephemeral, and in a hospital they might escape the observation of the attendants, especially where there are so many children. Too much care cannot be exercised in this matter of diagnosis, for we see that upon it in many cases depends the future health of previously healthy women. Now, then, as we have, I think, fully, and I hope satisfactorily, demonstrated the facts of the prevalence of syphilis in institutions where a large number of infants are congregated; of the frequency of occurrence and dangers of mucous patches in the mouths of these children; of the very frequent occurrence of nursing some mouths parasitic and non-parasitic, and of the great liability to mistakes in diagnosis which exists in many cases between simple and specific buccal lesions,—having, then, demonstrated these facts, we see that they have a very practical import. Thus they show us that more than ordinary care is required in their diagnosis and treatment, in order that errors may not occur, and that syphilis may not be communicated to those women, who, according to requirement, nurse more than one child.

Now, then, when these children are thus given to healthy women, it should first be ascertained that the infant is free from syphilis; should it have a sore mouth, that such is un-

doubtedly of simple nature. The greatest care should be exercised in the examination of the children, and this duty should be performed only by a physician. An orderly of the institution should not have the power of assigning an infant to any nurse, and, as I have said, the attending physician should satisfy himself fully of the freedom of that infant from syphilis. In a case of doubt the child should be bottle-fed until it is pronounced free from syphilis. This care in the assignment of children to nurses cannot be too rigidly enforced nor too sedulously carried out, for as dangers are numerous and powerful, a proportionate amount of circumspection is necessary. Indeed I think if error is made, it should be on the safe side, and that it would be well to segregate temporarily all cases of severe and doubtful mouth affection. During this period of uncertainty they should be bottle-fed, and each child should have its own utensil, which should be used for it alone, for the reason that syphilitic secretions might be retained on the india-rubber nipple used, and thus the disease would be communicated to an infant having only simple sore mouth. This suggestion is a most important one, and is thus rendered prominent because it is highly probable that among a promiscuous number of children with sore mouths, there possibly might be some afflicted with syphilis. In this event, if the utmost care is not taken, that disease might be communicated. Let us put the matter practically. Suppose, for instance, that among a large number of children with affections of the mouth, and in consequence fed by the bottle, that a nipple and bottle was not reserved exclusively for each, but that they were used promiscuously,—if, as is very probable, there were among them infants with syphilitic mouth lesions, how easy could it be for the contagious secretions of such to be retained upon the nipple, and from this implanted in the mouth of the next infant to which it was given. Infants having sores in the mouth are, for that reason, much more liable to contract syphilitic contagion than healthy ones are. This mode of *mediate contagion*, as it is called, is not at all improbable, and though we have not examples of it under the precise conditions now spoken of, there are numerous cases of syphilis on record in which the disease has been conveyed by the presence of the virus upon some utensil, as, for instance, those for drinking purposes. This prob-

able mode of the transmission of syphilis should be fully borne in mind and acted upon in infant institutions. I am aware that the routine of segregation of children and of their temporary nursing by the bottle would cause an extra amount of labor, and that strong objections might be urged against the use of the bottle, but I think that there is a great need for it, and that it would produce good results. If in a year two women were spared syphilis, I think it might be considered to have worked well. I am led to believe that in some institutions there is a laxity which needs immediate reform; that duties are assigned to orderlies and ward nurses and other women who are not fitted by their education for such cares.[1] Then, again, another important point is brought out by the case which I have reported. According to the woman's story, which I have believed to be true, as it has been verified in all of its particulars by Dr. Loring, a foundling infant was received in the institution, and immediately assigned to her as her regular nursling. This fact conclusively shows that sufficient care was not used; indeed it confirms in our mind the suspicion of laxity. It will be remembered that the infant referred to was a child having the look of a little old man, and that the woman was very loath to care for it, and only yielded when almost peremptorily ordered to do so. The circumstance calls to our mind forcibly the fact, that in hereditary syphilis its manifestations are not usually present at birth, but that generally they appear about the third week, and even later. This delay, as we may call it, in the evolution of syphilitic manifestation in infants suggests to us the practical point, that in the case of a child whose history is not known, as, for instance, particularly that of a foundling, or again one in which it is doubtful, that we may be unable to determine whether it is syphilitic or not.[2]

[1] In some of these infant institutions, women, zealous in the work and indefatigable in action, come to occupy positions which require, on occasions, an acquaintance with medicine which is not possessed by many of the sex, and in matters of assignment of patients they have more power than either resident or attending physicians. The present instance shows that in all such matters the medical man should be supreme in power.

[2] In many cases, however, even when nothing is known of the antecedents of the infant, a careful examination of its whole body will reveal its true condition. Though syphilitic manifestations are somewhat late in showing themselves, in the hereditary disease there are in many cases such facts to be gleaned

hence that, if assigned to a healthy woman to be nursed, it should be kept under observation, particularly as to its mouth, during a period of about a month. At the end of this time its condition can generally be determined with certainty. I think that the fact is very important indeed, and that its practical application should be enforced in infant asylums. There is, again, one more secretion by which syphilis may be transmitted from a tainted child to a healthy nurse; I refer to the blood. We know of a certainty that this fluid is contagious in the early stages of syphilis acquired or hereditary, consequently a danger, perhaps very remote, exists of an infant thus contaminating a nurse. This of course would be due to an abrasion or fissure in the infant's mouth giving exit to blood which might be planted on the nipple of the nurse. I merely allude to this as a possible source of syphilitic contagion between these parties, but I do not know of an instance of the kind, nor do I think such to be very probable. Still if a child is the victim of hereditary syphilis, it is a dangerous subject to any healthy nurse during the whole of its suckling life; if it has not at one period mucous patches in the mouth, such may develop at any subsequent time, and of course they would be highly contagious. Such being the facts, the natural deduction is evident, *that no syphilitic child should be given to a healthy nurse at any time whatever, certainly not when it has buccal lesions, as then contagion is almost inevitable; nor at any other time, even if the mouth is free from syphilitic lesions, as such are liable to appear at any time.* Apart from their extreme frequency, early in hereditary syphilis they often are developed later on, and have a marked tendency to relapse. These, then, are the sources of syphilitic contagion which are liable to occur to nursing women in large infant asylums.

In venturing to suggest that, in the cases of infants with suspicious sore mouths, bottle feeding should temporarily take the place of the human breast, I do not think I am advocating

even quite early as will either cause a grave suspicion of that trouble or lead to the opinion of the child's purity. Much stress may be laid on the condition of the body, whether emaciated or not, also on the typical senile appearance. The facts which I have elicited show forcibly that the whole body of each and every child should be examined in the presence of a trained physician; to this there should be no exception whatever.

an impossible or impracticable procedure; nor do I think that there is any reason why, in a large institution, the care of which I have spoken, and which, I know, is somewhat minute, and requiring very considerable time and attention to detail, as well as great familiarity with the appearances of simple and specific lesions, cannot be exercised. I do not think that it is so intricate but that it can readily be used in all cases. I am aware that persons who advocate reforms very often suggest impracticable measures for their establishment, or, again, consider necessary thereto such sweeping changes that, being impossible, they fail in their object. I do not advocate any such measures. The suggestions which I make are entirely indicated by science, and called for urgently by the condition of affairs in these institutions, and, when once put into operation, I am convinced that the extra amount of care and work involved would not be irksome. At any rate, it is conclusively seen that under the existing rules of management, syphilis is very liable to be transmitted to the women who nurse more than one child; consequently the authorities and medical boards of these institutions cannot shut their eyes to the danger, nor with the evidence before them of the fact which I have given, can they say that the present appeal for more care in management is a visionary dream of an alarmist, for I have stated only what I know to be true, and I think that I have not magnified the danger. In other countries this same accident has happened, and I judge that it is now provided against and the reform has been in each instance due to the plain published statement of facts by a medical man. I am not positive that the case of syphilis which I have reported is the only one produced by these two children, for I have learned that they were assigned each to a nurse in the suburban hospital. Not being able to trace these women, I am unable to state the result, but that the children were assigned to them is one which adds weight and force to what I have already stated.

I am disposed to think that strong objections will be made to the suggestion that infants, about whom there is a serious doubt of their being syphilitic, should be fed by the bottle, and that this part of the plan of reform will be looked upon with less favor than will be the suggestions for their regular and sys-

tematic examination.[1] I am an advocate of the plan of nursing children by the breast. I fully recognize the great advantage resulting from it, and I think that the plan adopted in these institutions by which motherless children are breast-fed, is a wise and beneficial one; but I think that I have shown a weak part of this general plan which requires modification of the whole. It will be urged that children having severe affections of the mouth are usually weak and debilitated, and that they particularly need human milk, and will not thrive, and that some may even die if they are bottle-fed. Still against this fact we have that of the dangers of syphilis to the nurse, and of its transmission in some cases to others. In France this difficulty is met by nursing such children by goats and goats' milk. This plan is perhaps adopted on account of the immunity which animals are said to possess to the syphilitic virus. I am unaware of the measure of success thus obtained, and I make the suggestion as it occurred to me, that in suburban branches of these hospitals many of these animals may be kept, and thus used at very little expense.

These, then, are the circumstances and dangers of syphilitic contagion between nursling infants and nurses, and it may be well here to remark that, in private practice, instances will be met with in which women become syphilitic by nursing an infected child with syphilitic buccal lesions. I have seen two such cases in which I traced the contagion clearly. One of these I report in the October, 1875, issue of the Archives of Dermatology, in an article on Syphilitic Chancres of the Breast. It is important that every practitioner should bear this fact in mind, as by so doing he may prevent the transmission of syphilis in

[1] It should be taken into consideration that if the examinations of infants are made only by physicians in a very thorough manner, there will be even in large institutions not very many cases of mouth lesions in which the doubt will be so great as to require the segregation of the child and its temporary artificial feeding. Of course this should only be done with care and caution, and the education and skill of the physician will be especially called into requisition. Should he not be thoroughly conversant with the affections of the mouth, which are so frequent in infants, he might carry his case and precautions so far as to put every infant with buccal trouble on the bottle. This need not be at all, for, as I have said, if care and skill are combined, the number of doubtful cases will be few. This greatly does away with the objection of bottle feeding.

many instances. It has often been a matter of surprise to me that this point has not been more forcibly and practically brought out in the text-books, as the danger induced is one which may befall any physician, or desolate any family.

The Dangers of the Transmission of Syphilis from Nurses to Nursing Children.

Let us now consider the dangers to which the community is liable from nurses with syphilitic chancres on the breast. It has been shown in the foregoing study, that nurses not infrequently have on their breasts syphilitic chancres. Not only may they become thus infected in infant hospitals (certainly in them by far the larger number of cases occur), but also they may thus become affected accidentally in the manner just pointed out. It is readily seen that these women may prove to be more or less extensively dangerous in proportion to the number of children to which they may happen to give the breast. Such nurses are very dangerous at two periods of their syphilis—first, in the period of incubation of their mammary chancre; second, in that state of development of the lesion in which it is as yet either an abrasion or a slight fissure or a small papule. When fully developed they usually, by their size and ulcerative tendency, prevent lactation, and attract such attention as leads to the discovery of their nature. Let us look at these points practically. After the deposit of the syphilitic virus on the woman's breast, a varying length of time elapses before the syphilitic chancre shows itself—called, as we have said before, the period of incubation. Now as there is in this person no perceptible morbid condition of the breast, the woman imagines herself healthy, and to a person unacquainted with the dangers of syphilis among this class, would undoubtedly be regarded as a proper nurse. This is well shown by the case of the woman McNally, who engaged herself in that capacity during the period of the incubation of her mammary chancre. Fortunately for the child nursed by her, she ceased to care for it a day or two prior to the development of her lesion, and thus it escaped syphilis. If, however, the woman had kept on as its wet nurse, or, again, if she had been employed a week later, when she regarded her lesion as of a trivial nature, this infant would undoubtedly have become syphilitic. This, then, opens to us a danger of great magnitude

and of insidious nature, and suggests to us that too much care cannot be exercised in the selection of a wet nurse. In this period of the incubation of the chancre, no one, unless he is familiar with the children which have been nursed by the woman, can have any suspicion of her being on the verge of syphilis; consequently the only reliable means of ascertaining whether she will probably develop a mammary chancre later on, *is to inquire into the history of all children nursed by her within a period of two months.* If she has nursed infants which have died, it is necessary to ascertain beyond a doubt the cause of death, and to direct the examination very searchingly in the direction of lesions of the mouth, skin, and nose. Should the facts developed appear at all suspicious, such a nurse should not be employed to care for a healthy child until a period as long as that of the incubation of syphilis shall have elapsed. At the end of that time she can, if her breasts are normal, be regarded as healthy. Again, if the woman has at certain times nursed children temporarily, the same inquiries should be made as to their condition. This amount of necessary care and attention is not at all overdrawn, for the reason that we know that nurses are so liable to become infected, and that for a time their syphilitic chancres are of such a seemingly simple character as not to attract attention. I can well illustrate and confirm what I have here advanced by the case of the woman McNally. Suppose she, as many women do, had remained in the hospital for a much longer time than she did, and then, wishing to earn money, or for any other reason, had engaged herself as a permanent wet nurse, she would almost inevitably have transmitted syphilis to her new infant. If, in her incubation period, she only had been examined, and had no questions been asked as to her antecedent nursings, she would, being then strong, well-built, healthy, and without any blemish on the skin, have been regarded as a very fine wet nurse, indeed a more than ordinary one. The aspect of the case, however, was far different two months later. The practical conclusion, then, is this: that in taking wet nurses from these various institutions, and from agencies for such, there is a very grave danger that women in whose systems syphilis is then being developed will be employed; therefore the danger should be met in the manner I have suggested. The next point to be consid

ered is the fact of the seemingly simple nature of the syphilitic lesion of the breast in its early stages.[1] Nursing women are so liable to have little ulcers, fissures, and abrasions, that usually they do not attract marked attention. Unfortunately the syphilitic lesion in its first stages resembles strikingly these simple affections; hence their danger may be unsuspected. This being the case, the doubt being so serious, all such cases should be watched for a long period with great care, and in the meantime no infant should be exposed to the risk. Of course if such a nurse was submitted to a physician for his judgment, he would, for the reasons given, pronounce it a doubtful case. These, then, are the dangers of syphilitic contagion which both nurses and children are liable to, and it will be seen that they are numerous and insidious. Considering the nature of the disease, and, under these circumstances especially, its danger of being propagated to many others—it being developed really, in many cases, in the midst of the family circle—our most watchful care is imperatively demanded, as private physicians, to prevent, as far as we can, all cases in our own practice, and, as members of infant hospitals, to be alive to the dangers which have been pointed out, and to use diligent and continual effort for their suppression.

125 E. 12TH ST., NEW YORK, Oct. 1st, 1875.

[1] See an article by me in the October number, 1875, of the Archives of Dermatology, entitled Clinical Features of Syphilitic Chancres of the Breast.